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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/405,716	09/24/1999	HAIMING WANG	TNCR.170US1	9795

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EXAMINER
SMITH, ZANDRA V

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 05/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/405,716	Applicant(s) WANG ET AL.	
	Examiner Zandra V. Smith	Art Unit 2877	

-- Th MAILING DATE of this communication appears on th cov r sh et with th corr spond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-125* is/are pending in the application.

4a) Of the above claim(s) *83-87* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49,51-80,88-95,97-101,103-105,107-112,114-117,119-121 and 123-125* is/are rejected.

7)☒ Claim(s) *50,81,96,102,106,113,118 and 122* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2-3,5* .
4) ☒ Interview Summary (PTO-413) Paper No(s). *7* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 73-130 have been renumbered 68-125. The following Office Action will refer to the re-numbered claims.

Election/Restrictions

Claims 83-87 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in an interview with James Hsue on April 11,2002.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Hsue on April 18, 2002.

The application has been amended as follows:

Claim 68, line 1, "72" has been changed to –67--.

Claim 69, line 1, "72" has been changed to –67--.

Claim Objections

Claim 17 is objected to because of the following informalities: redundant word "rotating" in line 6. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-33, 35-36, 70-75, and 77-78 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Finarov (5,333,052)***.

As to **claim 29,** Finarov discloses a system for automatic optical inspection, comprising:

providing a beam of radiation having a polarized component and supplying radiation from the beam to the sample (col. 5, lines 3-6);

detecting radiation form the beam after modification by the sample (col. 6, lines 50-52);

modulating the polarization of the beam of radiation prior to its detection using a rotating polarizer or rotating phase modulator (col. 6, lines 55-65);

passing the modulated radiation through a fixed or rotating linear polarizer prior to its detection (col. 6, lines 60-65); and

deriving one or more ellipsometric parameters of the sample (col. 7, lines 50-52).

Finarov differs from the claimed invention in that the incident radiation is not specifically disclosed as having any polarization components, however since unpolarized light has infinitely many linearly polarized components, the limitation is inherently met.

As to **claims 30 and 71,** Finarov discloses everything claimed, as applied above, in addition the element is continually rotated (col. 6, lines 60-65).

As to **claims 31 and 72,** Finarov discloses everything claimed, as applied above, in addition the detecting step detects radiation during rotation of the element (col. 7, lines 1-10).

As to **claims 32 and 73,** Finarov discloses everything claimed, as applied above, in addition unpolarized light is passed through a fixed linear polarizer (col. 6, lines 55-65)

As to **claims 33 and 74-75,** Finarov discloses everything claimed, as applied above, in addition broadband radiation is provided (col. 2, line 23).

As to **claims 35 and 77,** Finarov discloses everything claimed, as applied above, in addition ellipsometric parameters are derived (col. 4, lines 55-65).

As to **claims 36 and 78,** Finarov discloses everything claimed, as applied above, in addition the system of Finarov is not calibrated and the ellipsometric parameters are determined (col. 7, lines 50-52).

As to **claims 70,** Finarov discloses a system for automatic optical inspection, comprising:

a source (10, col. 6, line 48);

a detector (14, col. 6, line 52);

optics (63, col. 8, lines 25-28);

rotating polarizing element and a fixed or rotating linear polarizer (col. 6, lines 55-65); and

a system deriving one or more ellipsometric parameters (col. 7, lines 50-52).

Finarov differs from the claimed invention in that the incident radiation is not specifically disclosed as having any polarization components, however since unpolarized light has infinitely many linearly polarized components, the limitation is inherently met.

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 90-94, 107-111 are rejected under 35 U.S.C. 102(e) as being anticipated by ***Aspnes et al. (5,900,939)***.

As to **claims 90, 92, 107, and 109,** Aspnes '939 discloses a thin film measurement ellipsometer, comprising:

measuring a sample by means of an ellipsometer(2) to provide a first signal(col. 6, line 17);

measuring the sample by means of an optical instrument to provide a second signal (col. 9, lines 5-10); and

deriving from information in the first and second signals parameters of the sample and ellipsometer (col. 2, lines 40-45 and col. 9, lines 10-30).

As to **claims 91 and 108,** Aspnes '939 discloses everything claimed, as applied above, in addition the sample (4) is an internal reference, and system is calibrated using the measurements (col. 3, line 35).

As to **claims 93 and 110,** Aspnes '939 discloses everything claimed, as applied above, in addition the beam (106) has a polarized component and is supplied to the sample (4) and radiation from the sample is detected (col. 8, lines 12-15), the polarization modulated prior to detection (col. 6, lines 41-50), and ellipsometric parameters are derived (col. 8, lines 15-18).

As to **claims 94 and 111,** Aspnes '939 discloses everything claimed, as applied above, in addition the modulation happens without restriction to the magnitude of the modulation (col. 6, lines 41-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 9, 11-16, 37-39, 46, 48-49, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** in view of ***Chen et al. (5,581,350).***

As to **claim 1,** Finarov discloses a system for automatic optical inspection, comprising:

providing a beam of radiation having a polarized component and supplying radiation from the beam to the sample (col. 5, lines 3-6);

detecting radiation form the beam after modification by the sample (col. 6, lines 50-52);

modulating the polarization of the beam of radiation prior to its detection using a rotating polarizer or rotating phase modulator (col. 6, lines 55-65); and

deriving one or more ellipsometric parameters of the sample (col. 7, lines 50-52).

Finarov differs from the claimed invention in that system parameters are not derived, however to do so is well known as taught by Chen. Chen discloses a system for calibrating an ellipsometer that includes deriving system parameters (col. 4, lines 15-20). It would have been obvious to one having ordinary skill in the art at the time of invention to derive system parameters as a means for calibration of the system to ensure accurate measurements.

As to **claims 2-3,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition the modulating step modulates the beam before and after modification by the sample and includes rotation of a phase modulator or polarizer and rotation of a second polarizer or phase modulator (col. 6, lines 60-65)

As to **claim 9,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition a rotating polarizer (15) is used (Finarov, col. 7, lines 1-5).

As to **claims 11, 15, 46, and 48,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition Chen provides the derivation of parameters related to the rotating polarizer (col. 4, lines 20-25). It would have been obvious to one having ordinary skill in the art at the time of invention to derive parameters related to the rotating polarizer to calibrate the system.

As to **claims 12 and 49,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition unpolarized radiation is passed through a fixed polarizer (Finarov, col. 6, lines 48-56).

As to **claims 13 and 51,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition broadband radiation is provided (Finarov, col. 2, line 23).

As to **claims 14 and 52,** the system of Finarov and Chen discloses everything claimed, as applied above, with the exception of the wavelength range, however it would have been obvious to one having ordinary skill in the art at the time of invention to use 150-800 nm since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill.

As to **claims 16 and 53,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition the system of Finarov is not calibrated and the ellipsometric parameters are determined (col. 7, lines 50-52).

As to **claim 37,** Finarov discloses a system for automatic optical inspection, comprising:

a source (10, col. 6, line 48);

optics (63, col. 8, lines 25-28);

a detector (14, col. 6, line 520;

modulating devices (15-17, col. 6, lines 55-65); and

a system deriving one or more ellipsometric parameters (col. 7, lines 50-52).

Finarov differs from the claimed invention in that system parameters are not derived, however to do so is well known as taught by Chen. Chen discloses a system for calibrating an ellipsometer that includes deriving system parameters (col. 4, lines 15-20). It would have been obvious to one having ordinary skill in the art at the time of invention to derive system parameters as a means for calibration of the system to ensure accurate measurements.

As to **claims 38-39,** Finarov discloses everything claimed, as applied above, in addition the modulating device includes a phase modulator or polarizer and a rotator for rotating the polarizer or phase modulator (col. 6, lines 60-65).

Claims 4-8, 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** and ***Chen et al. (5,581,350)*** and further in view of ***Aspnes (3,985,447).***

As to **claims 4, 6-7, 40, 42, and 43,** the system of Finarov and Chen discloses everything claimed, as applied above, in addition the modulator and polarizer are continually rotated at two speeds that form a ratio of two integers indivisible by the other (Aspnes, col. 1, lines 64-65 and col. 2, line 68). Finarov and Chen fail to specifically disclose rotation of the modulator and polarizer at different speeds, however to do so is well known as taught by Aspnes. Aspnes discloses a system for the measurement of thin films by polarized light that includes rotating the modulator and polarizer at different speeds (col. 2, line 63-col. 3, line 3). It would have been obvious to one having ordinary skill in the art at the time of invention to rotate the modulator and polarizer at different speeds for this corresponds to the selection of optimum parameters (Aspnes, col. 3, lines 4-5) and will provide information necessary to derive necessary information (Aspnes, col. 4, lines 10-15).

As to **claims 5 and 41,** the system of Finarov, Chen, and Aspnes discloses everything claimed, as applied above, with the exception of the number or revolutions occurring during each measurement, however it would have been obvious to one having ordinary skill in the art at the time of invention to rotate the modulator or polarizer by any number necessary to make the

measurement since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill.

As to **claims 8 and 44,** the system of Finarov, Chen, and Aspnes discloses everything claimed, as applied above, in addition radiation is detected during rotation (Finarov, col. 1, lines 1-10 and Aspnes, col. 2, lines 35-40).

Claims 10 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** and ***Chen et al. (5,581,350)*** and further in view of ***Vareille et al. (5,018,863)***.

As to **claims 10 and 47,** the system of Finarov and Chen discloses everything claimed, as applied above, with the exception of a fresnel rhomb as the rotating retarder, however to do so is well known as taught by Varielle. Varielle discloses an ellipsometric analysis system that includes a fresnel rhomb (col. 4, line 45) as the retarder. It would have been obvious to one having ordinary skill in the art at the time of invention to include a fresnel rhomb as disclosed by Varielle since is has been held that the selection of a known material on the basis of its suitability for the intended use is within the level of ordinary skill of a worker in the art.

Claims 34 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052).***

As to **claims 34 and 76,** Finarov discloses everything claimed, as applied above, with the exception of the wavelength range, however it would have been obvious to one having ordinary skill in the art at the time of invention to use 150-800 nm since it has been held that where the

general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill.

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** and ***Chen et al. (5,581,350)*** and further in view of ***Nagata et al. (5,504,581).***

As to **claim 45,** the system of Finarov and Chen discloses everything claimed, as applied above, with the exception an instrument removing or inserting the modulator or polarizer, however the inclusion of such a device is well known as taught by Nagata. Nagata discloses a birefringence measuring system that includes an instrument removing or inserting the modulator or polarizer (col. 8, lines 20-26). It would have been obvious to one having ordinary skill in the art at the time of invention to include an instrument removing or inserting the modulator or polarizer to obtain an output of the detector with respect to the angles of rotation of the polarizer or modulator.

Claims 54-56 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** and ***Chen et al. (5,581,350)*** and further in view of ***Dill et al. (3,880,524)***.

As to **claims 54-56 and 58,** the system of Finarov and Chen discloses everything claimed, as applied above, with the exception an optical element for diverting portion of the radiation to a position sensitive detector, however to do so is well known as taught by Dill. Dill discloses an automatic ellipsometer that includes an optical element for diverting portion of the radiation to a position sensitive detector that detects tilt and height of the sample (col. 9, lines 10-39 and col. 11, line 63-col. 12, line 38). It would have been obvious to one having ordinary skill in the art at the time of invention to use a position sensitive detector to detect tilt and height of

the sample because tilt and height deviation cause errors in the orientation of the reflected light beam.

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** in view of ***Nagata et al. (5,504,581).***

As to **claim 79,** Finarov discloses everything claimed, as applied above, with the exception an instrument removing or inserting the modulator or polarizer, however the inclusion of such a device is well known as taught by Nagata. Nagata discloses a birefringence measuring system that includes an instrument removing or inserting the modulator or polarizer (col. 8, lines 20-26). It would have been obvious to one having ordinary skill in the art at the time of invention to include an instrument removing or inserting the modulator or polarizer to obtain an output of the detector with respect to the angles of rotation of the polarizer or modulator.

Claims 80, 82, and 88-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Finarov (5,333,052)*** in view of ***Dill et al. (3,880,524)***.

As to **claims 80 and 82,** Finarov discloses everything claimed, as applied above, with the exception an optical element for diverting portion of the radiation to a position sensitive detector, however to do so is well known as taught by Dill. Dill discloses an automatic ellipsometer that includes an optical element for diverting portion of the radiation to a position sensitive detector that detects tilt and height of the sample (col. 9, lines 10-39 and col. 11, line 63-col. 12, line 38). It would have been obvious to one having ordinary skill in the art at the time of invention to use a position sensitive detector to detect tilt and height of the sample because tilt and height deviation cause errors in the orientation of the reflected light beam.

As to **claims 88-89,** Finarov discloses a system for automatic optical inspection, comprising:

a source (10, col. 6, line 48);

optics (63, col. 8, lines 25-28);

a detector (14, col. 6, line 520;

modulating devices (15-17, col. 6, lines 55-65); and

a system deriving one or more ellipsometric parameters (col. 7, lines 50-52).

Finarov differs from the claimed invention in that optics are not provided to focus radiation form the sample in a direction away from a normal direction to the sample, however to do so is well known as taught by Dill. Dill discloses an automatic ellipsometer that includes an optical element for diverting portion of the radiation to a position sensitive detector that detects tilt and height of the sample (col. 9, lines 10-39 and col. 11, line 63-col. 12, line 38). It would have been obvious to one having ordinary skill in the art at the time of invention to use a position sensitive detector to detect tilt and height of the sample because tilt and height deviation cause errors in the orientation of the reflected light beam.

Additionally, a cylindrical objective is not provided, however to do so would have been obvious to one having ordinary skill in the art since it has been held that the selection of a known material on the basis of its suitability for the intended use is within the level of ordinary skill of a worker in the art.

Claims 95, 97-101, 103-105, 112, 114-117, 119-121, and 123-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Aspnes et al. (5,900,939)*** in view of ***Gee (3,904,293).***

As to **claims 95, and 112,** Aspnes '939 discloses everything claimed, as applied above, in addition film thickness information is obtained (col. 2, line 43). Aspnes '939 differs from the claimed invention in that the depolarization caused by the sample is not obtained, however to do so is well known as taught by Gee. Gee discloses a surface measurement system that measures depolarization of the sample (see abstract). It would have been obvious to one having ordinary skill in the art at the time of invention to measure depolarization since light scatter from the surface causes depolarization of the light and measurement of depolarization ensures complete characterization of the sample surface.

As to **claims 97, 103, 114, 119, and 123-125,** Aspnes '939 discloses a thin film measurement ellipsometer, comprising:

measuring a sample by means of an ellipsometer(2) to provide a first signal(col. 6, line 17);

measuring the sample by means of an optical instrument to provide a second signal (col. 9, lines 5-10); and

deriving from information in the first and second signals parameters of the sample (col. 9, lines 10-30).

Aspnes '939 differs from the claimed invention in that the depolarization caused by the sample is not obtained, however to do so is well known as taught by Gee. Gee discloses a surface measurement system that measures depolarization of the sample (see abstract). It would have been obvious to one having ordinary skill in the art at the time of invention to measure depolarization since light scatter from the surface causes depolarization of the light and measurement of depolarization ensures complete characterization of the sample surface.

As to **claim 98,** Aspnes '939 discloses everything claimed, as applied above, in addition another sample is measured by an ellipsometer to provide signals for calibration (col. 2, lines 41-43).

As to **claims 99, 104, 115, and 120,** Aspnes '939 discloses everything claimed, as applied above, in addition the beam (106) has a polarized component and is supplied to the sample (4) and radiation from the sample is detected (col. 8, lines 12-15), the polarization modulated prior to detection (col. 6, lines 41-50), and ellipsometric parameters are derived by a processor (col. 8, lines 15-18).

As to **claims 100, 105, 116, and 121,** Aspnes '939 discloses everything claimed, as applied above, in addition the modulation happens without restriction to the magnitude of the modulation (col. 6, lines 41-50).

As to **claims 101 and 117,** Aspnes '939 discloses everything claimed, as applied above, in addition parameters of the ellipsometer are derived (col. 10, lines 20-30).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 17-36, 59-65, and 67-69 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17-36 of copending Application No. 09/298,007. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims include the same subject matter. In fact the only difference in the claims is the use of a second rotating linear polarizing element ('007) as opposed to a second rotating polarizing element. It would have been obvious to one having ordinary skill in the art at the time of invention to include a linear polarizing element since it would amount to the selection of a known material on the basis of its suitability for the intended use.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

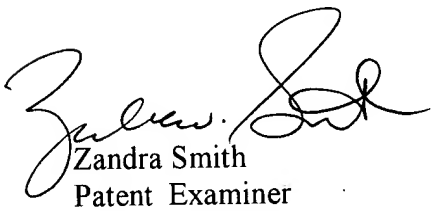
Claims 50, 57, 81, 96, 102, 106, 113, 118, and 122 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination, fails to disclose or render obvious the inclusion of a second fixed linear polarizer, wherein the system derives orientations of planes of the first and second linear polarizers or the use of diffraction gratings or two pellicle beam splitters to direct a portion of light modulated by the device to position sensitive detector, deriving depolarization caused by the sample over a spectrum of wavelengths.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zandra V. Smith whose telephone number is (703) 305-7776. The examiner can normally be reached on 7:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703)308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0530.



Zandra Smith
Patent Examiner
Art Unit 2877
May 2, 2002